

**DRAFT** Programmatic Environmental Impact Statement  
for Accomplishing Expanded Civilian Nuclear Energy  
Research and Development and Isotope Production Missions in the  
United States, Including the Role of the Fast Flux Test Facility

**Volume 2**



Cover photo/illustration identification, beginning at top center, and going clockwise:

- Radioisotope tagged monoclonal antibodies, “smart bullets,” target malignant cells for diagnosis and treatment of diseases
- The Fast Flux Test Facility near Richland, Washington
- Illustration of satellite that could use radioisotope power systems
- The High Flux Isotope Reactor at the Oak Ridge National Laboratory near Oak Ridge, Tennessee
- The Advanced Test Reactor at the Idaho National Engineering and Environmental Laboratory near Idaho Falls, Idaho
- Tip of a remote-handling arm, used for work in developing industrial and medical isotopes

### **AVAILABILITY OF THE DRAFT NI PEIS**

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## Cover Sheet

**Responsible Agency:** United States Department of Energy (DOE)

**Title:** *Draft Programmatic Environmental Impact Statement for Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions in the United States, Including the Role of the Fast Flux Test Facility (NI PEIS)*

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**Abstract:** Under the authority of the Atomic Energy Act of 1954, as amended, the DOE is responsible for ensuring the availability of isotopes for medical, industrial and research applications, meeting the nuclear material needs of other Federal agencies, and undertaking research and development activities related to development of nuclear power for civilian use. To meet these responsibilities, DOE maintains nuclear infrastructure capabilities that support various missions. Current estimates for the future needs of medical and industrial isotopes, plutonium-238, and research requirements indicate that the current infrastructure will soon be insufficient to meet the projected demands. These capabilities must be enhanced to provide for: (1) production of isotopes for medical and industrial uses, (2) production of plutonium-238 for use in advanced radioisotope power systems for future National Aeronautics and Space Administration (NASA) space exploration missions, and (3) the Nation's nuclear research and development needs for civilian application.

This NI PEIS evaluates the environmental impacts of a No Action Alternative (maintaining status quo), four alternative strategies to accomplish this mission, and an alternative to permanently deactivate the Fast Flux Test Facility (FFTF). The alternatives are:

No Action

1. Restart FFTF at Hanford, Washington, to meet all isotope production and research requirements;
2. Use only existing operational facilities;
3. Construct one or two new accelerators;
4. Construct a new research reactor; or
5. Permanently deactivate FFTF (with no new missions).

**Public Comments:** In preparing this Draft NI PEIS, DOE considered comments received from the public during the scoping process (September 15, 1999 to October 31, 1999). Additionally, comments received during the scoping period for the discontinued *Plutonium-238 Production EIS* (October 5, 1998 to January 4, 1999) were considered in the preparation of this Draft NI PEIS. Comments on this Draft NI PEIS

may be submitted during the 45-day comment period. Public meetings on this Draft NI PEIS will also be held during the comment period. The dates, times, and locations of these meetings will be announced shortly after issuance of this Draft NI PEIS.